

09/845,231

F0630

REMARKS

Claims 1-7, 28-30, 35 and 36 are currently pending in the subject application and are presently under consideration. Claims 8-27 and 31-34 have been withdrawn from consideration in this prosecution. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-5, 28-30, 35 and 36 Under 35 U.S.C. §102(b)

Claims 1-5, 28-30, 35 and 36 stand rejected under 35 U.S.C. §102(b) as being anticipated by Moslehi (US 5,270,222). It is respectfully requested that this rejection be withdrawn for at least the following reason. Moslehi does not teach or suggest each and every element of the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002); *See Verdegaa Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 1-7

Independent claim 1 recites a monitoring system adapted to detect *structural irregularities* associated with the deposited thin film. In the subject invention, a structural irregularity can be "an area where thin film was not deposited amorphously and/or uniformly. Such defects include any structural irregularity resulting from deposition such as a pinhole, an air bubble, a depression, an agglomerate and the like" (See page 9, lines 20-24). Thus, the system recited in the subject claim can be utilized to measure a plurality of *structural irregularities* that can cause a thin film to fall outside of a specified manufacturing tolerance.

09/845,231

F0630

In the Office Action dated April 23, 2003, the Examiner relies on col. 20, lines 44-46 and col. 20, line 65 – col. 21, line 5 of Moslehi to teach this limitation. However, Moslehi does not teach or suggest the detection of *structural irregularities* as recited in the subject claims. Instead, Moslehi discloses a system for detecting only surface thickness of a thin film on a semiconductor. Limiting an inspection to only a thickness measurement may not provide a comprehensive analysis of other structural irregularities that exist and produce a fatal error in the manufacturing of a semiconductor. For example, an air bubble may exist on the surface and cause a fatal error in the semiconductor and yet pass a preset “thickness” tolerance.

Furthermore, independent claim 1 recites a limitation comparing reflected light data associated with the deposited thin film with the deposited thin film with a database comprising *known thin film reflected light signatures*. The utilization of known light signatures can greatly enhance a measurement systems capability in that the tolerance can be rechecked with each new batch of semiconductor that is fabricated. By implementing fabrication tolerances specific to a fabrication, the quality control can be maintained at a more efficient rate since each fabrication will produce a higher yield of product within tolerance. In contrast, Moslehi does not teach or suggest a comparison of *known thin film reflected light signatures*. Rather, both sections are directed to mere comparison of reflected light to an *acceptable range*.

Thus, for the above-mentioned reasons, it is submitted that Moslehi does not anticipate or suggest claim 1 (or claims 2-7 which depend therefrom), and this rejection should be withdrawn.

Claims 28-30

Claim 28 has been amended herein to recite a method that includes monitoring *structural irregularities* associated with the deposited thin film by comparing reflected light data associated with the deposited thin film with a database comprising *known thin film reflected light signatures*. Moslehi does not teach or suggest monitoring structural irregularities or comparing data to known thin film reflected light signatures as disclosed in the subject invention for reasons provided *supra*.

09/845.231

F0630

Furthermore, independent claim 28 recites a method for employing a *scatterometry means to analyze reflected light*. In the Office Action dated April 23, 2003, the Examiner relies on col. 10, lines 40-50 of Moslehi. However, utilizing scatterometry means to analyze reflected light is not mentioned in column 10, lines 40-50. Rather, this section is directed only to a beam of light directed to and reflected off of a surface. However, there are no means disclosed to analyze reflected light in the manner recited in the subject claim.

Therefore, in view of at least the foregoing, it is respectfully submitted that Moslehi neither anticipates nor suggests applicants' invention as recited in independent claim 28 (and claims 29-30 which depend therefrom), and this rejection should be withdrawn.

Claims 35 and 36

Independent claims 35 and 36 have been amended herein to recite determining the characteristics of a thin film utilizing reflected light and comparing to *known thin film reflected light signatures*. Moslehi does not teach or suggest employing known reflected light signatures and comparing to existing light signatures as discussed *supra*. Thus, for the aforementioned reasons, it is submitted that Moslehi does not teach or suggest claims 35 and 36 and this rejection should be withdrawn.

II. Rejection of Claims 6 and 7 Under 35 U.S.C. §103(a)

Claims 6 and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Moslehi (US 5,270,222) in view of Erhardt *et al.* (US 5,629,137). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Moslehi in combination with Erhardt *et al.* individually and in combination, do not teach or suggest all limitations of the subject claims. Specifically, for reasons provided *supra*, Moslehi does not teach or suggest the limitations of independent claim 1. Therefore, since claims 6 and 7 depend from claim 1, Moslehi in view of Erhardt, *et al.* does not make up for the aforementioned deficiencies. Accordingly, this rejection should be withdrawn.

09/845,231

F0630

III. Conclusion


The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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